

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION **2811**

Inventor(s): MANABE et al.

Appln. No.: 09 | 783,035

Series Code: ↑

Serial No. ↑

Filed: February 15, 2001

Hon. Commissioner of Patents  
Washington, D.C. 20231

Group Art Unit: 2811

Examiner: Tran, M.

Atty. Dkt. P 276665

F199-156-USDIV

Appln. Title: LIGHT-EMITTING SEMICONDUCTOR  
DEVICE USING GROUP III NITRIDE  
COMPOUND

Sir:

**REPLY/AMENDMENT/LETTER**

Date: July 3, 2001

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

**FEE REQUIREMENTS FOR CLAIMS AS AMENDED**

1. Small Entity claim A. <input checked="" type="checkbox"/> NOT made B. <input type="checkbox"/> Withdrawn C. <input type="checkbox"/> made herewith D. <input type="checkbox"/> made previously For B & C See <b>Required Separate Paper</b> (Pat-256)		Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims		3	**minus 20	0	x \$18/\$9 =	+ \$0	103/203
3. Independent Claims		2	***minus 3	0	x \$80/\$40 =	+ \$0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) ..... add					+ \$270/\$135 =	+ \$0	104/204
5. Original due Date:		<input checked="" type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached		(1 mo)	\$110/\$55 =				115/215
		(2 mos)	\$390/\$195 =		+ \$0		116/216
		(3 mos)	\$890/\$445 =				117/217
		(Usable only for ≤ 2mo.OA --- 4 mos)	\$1390/\$695=				118/218
		(Usable only for 30 day/1mo.OA --- 5 mos)	\$1890/\$945=				128/228
7. Enter any previous extension fee paid since above original due date and subtract					- \$0		
8. Extension Fee Attached					+ \$0		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee .....					+ \$110/\$55	+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), ..... add					+ \$180	+ \$0	126
or if Rule 97(d) Request ..... add					+ \$180		126
11. After-Final Request Fee per rules 129(a) and 17(r) .....					+ \$710/355	+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b).....					x \$710/355 ea	+ \$0	149/249
13. Request for Continued Examination (RCE) .....					+ \$710/355	+ \$0	1179/1279
14. Petition fee for .....					+ \$0		
15. TOTAL FEE ENCLOSED =					\$0		

16. \*If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. \*\*If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. \*\*\*If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

Our Deposit Account No. 03-3975)

(Our Order No. 031317 | 276665

C#

M#

**CHARGE STATEMENT:** The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Winthrop LLP

Intellectual Property Group

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NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

MANABE et al.

Application No. 09/783,035

Filed: February 15, 2001

Title: LIGHT-EMITTING SEMICONDUCTOR  
DEVICE USING GROUP III NITRIDE COMPOUND



Group Art Unit: 2811

Examiner: M. Tran

#5  
PreAmend  
Rusell  
7/18/01

\* \* \* \* \*

July 3, 2001

THIRD PRELIMINARY AMENDMENT

Hon. Commissioner of Patents  
Washington, D.C.

Dear Sir:

Prior to the examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please add the following new claim:

RECEIVED  
JUL 10 2001  
TECHNICAL CENTER 2600

18. (new) A semiconductor light emitting device comprising:

an n-type clad layer consisting of a gallium nitride based compound semiconductor;

an active layer consisting of a gallium nitride based compound semiconductor, said active layer being made from a material having a band gap energy smaller than that of said n-type clad layer;

a p-type clad layer consisting of a gallium nitride based compound semiconductor, said p-type clad layer being made from a material having a band gap energy greater than that of said active layer, and sandwiching said active layer accompanying with said n-type clad layer,

21 concluded  
wherein said materials of said n-type clad layer and said p-type clad layer are selected so as to make a band gap energy of said n-type clad layer smaller than the band gap energy of said p-type clad layer.

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